

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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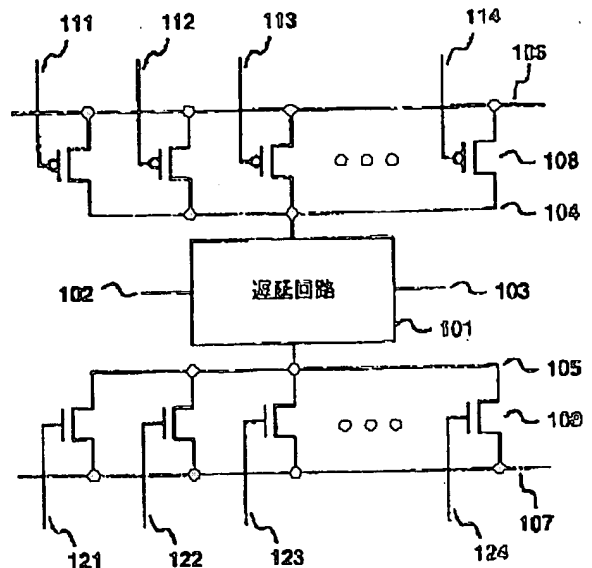
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APPLICANT : NEC CORP;

INVENTOR : MIZUNO MASAYUKI;

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TITLE : DELAY TIME VARIABLE DEVICE



**ABSTRACT :** PROBLEM TO BE SOLVED: To suppress the fluctuation of gain (the ratio of the change of the input/output delay time of a delay time variable device at the time of changing delay time control signals) by dispersion on manufacture or the fluctuation of an operation temperature and to reduce influence on the input/output delay time by noise superimposed on signals.

**SOLUTION:** The N pieces of parallelly connected pMOSes 108 and the N pieces of parallelly connected nMOSes 109 are connected between the power supply terminal of a delay circuit 101. Setting is performed so as to make ON currents be mutually different by changing the W/L (channel width/channel length) of the pMOSes 108 and the nMOSes 109. Delay time control input signals are inputted to a gate. The ON currents of the pMOSes and the nMOSes are set so as to fix the change amount (gain) of delay time at the time of successively performing turning ON under a condition that transistors turned ON at a certain moment are one each of the pMOS and the nMOS at all times. Since the delay time is inversely proportional to the ON current, the delay time is changed by changing the ON current.

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